



Our Reference: CSA-101-B

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellants: Henry Colombo and Bernard M. Licata
Serial Number: 10/039,805
Filing Date: October 19, 2001
Examiner/Art Group Unit: Dunwoody, Aaron M./3679
Title: METHOD AND APPARATUS FOR
FORMING LEAK-PROOF COUPLING FOR
BEVERAGE DISTRIBUTION SYSTEM

APPEAL BRIEF

Attn: MS Appeal Briefs - Patents
Commissioner for Patents
P. O. Box 1450
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Sir:

Please enter the following Appeal Brief in the Notice of Appeal filed
January 23, 2004. This appeal is taken from the final rejection of claims 12 - 14 and
25 - 30 and from the Examiner's Advisory Action dated February 3, 2004.

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REAL PARTY IN INTEREST

The real parties in interest are the inventors, Henry Colombo and Bernard M. Licata.

RELATED APPEALS AND INTERFERENCES

There are no related appeals and interferences.

STATUS OF CLAIMS

Claims 12 - 14 and 25 - 30 are pending in the case. Claims 1 - 11 and 15 - 24 were withdrawn.

STATUS OF AMENDMENT

An Amendment After Final Rejection was submitted. In the Amendment After Final, claim 28 was cancelled and claim 30 was amended to overcome the rejection under 35 U.S.C. §112, first paragraph. The Amendment After Final Rejection was not entered. A second Amendment After Final Rejection is filed contemporaneously with this Appeal Brief cancelling claim 12 and amending claim 30 to remove the rejection under 35 U.S.C. §112, first paragraph.

SUMMARY OF THE INVENTION

The present invention is an overhead beverage distribution system 10 extending from a beverage storage area 14 remote from a beverage dispensing area 16 with a series of pipes 18 communicating between the storage beverage area 14 in the dispensing unit 16. The series of pipes 18 are run overhead in or adjacent to the ceiling of an eating and/or drinking establishment. The series of pipes 18 define a chase or channel 20 for housing the multiple conduits in one or more trunk lines from the remote beverage storage area 14 to the beverage dispensing area 16. One or more

of these trunk lines 22 may be encapsulated or housed within the chase 20. The series of pipes 18 are made of metallic and preferably thin aluminum alloy. Between each section of the metallic pipes 18 is a sealed joint 12. The sealed joint 12 includes a sealing tape 28 and a steel clamp 30. Two ends 32 of adjacent pipes which form the sealed joint are cut, rounded, and cleaned and aligned to be abutted in an end-to-end orientation. The surfaces of the ends 32 of the pipes 18 are conditioned and prepared for receiving the adhesive sealing tape 28. The sealing tape 28 is preferably made from an acrylic, polyolefin, or other similar material, foam closed self-substance having a pressure sensitive acrylic or similar material adhesive thereon. The sealing tape is preferably double-coated (double-sided) having a peel adhesion rating of at least eighteen lbs/in. For the application of the present invention, the following attributes of the sealing tape are necessary: a normal tensile strength to aluminum at room temperature of at least 50 lbs/in² and preferably 80-110 lbs/in², should hold 100 gram and preferably 1250 grams at 72° Fahrenheit for ten thousand minutes and at least 500 grams at elevated temperatures up to 150° Fahrenheit. The dynamic sheer is at least 40 lbs/in² and preferably 60 lbs/in² at room temperature with a 1 in² overlap of the sealing tape. The temperature tolerance of the adhesive tape is at least 200° in the short term and 160° in the long term when the tape is supporting 250 grams in static sheer for 10,000 minutes. The sealing tape is pre-cut and aligned to the butted ends of the pipes. The tape is laid flat and smooth around the joint and overlaps approximately 3/16 inch - 1/4 inch. A steel coupling 30 is slid over the sealing tape 28 so that the tongue 88 of the coupling 30 is squarely on the overlap 90 of the tape

28. The steel coupling has clamped ends 89 which are held together by locked washers, nuts, and bolts 92.

ISSUES ON APPEALS

Issue No. 1: Is claim 28, unpatentable under 35 U.S.C. §112, first paragraph for claiming a chamfered end in the pipe in claims 28 and 30 which is not subject matter described in the specification?

This issue is moot in view of the Second After Final Amendment filed contemporaneously with this Appeal Brief eliminating the objected to reference of a chamfered end of the pipe by cancelling claim 28 and amending claim 30 appropriately to eliminate reference to a chamfered end.

Issue No. 2: Are claims 12 - 14 and 25 - 30 unpatentable under 35 U.S.C. §103(a) over U. S. Patent No. 3,343,252 by Reesor in view of U. S. Patent No. 3,937,641 by Kusher et al and 3M VMB™ Double Coated Acrylic Foam Tapes and Adhesive Transfer Tapes Technical Data?

Examiner Answers: Yes.

Appellant Answers: No.

Issue No. 3: Are the drawings objected to under 37 C.F.R. §183(a) for not showing the features of the inside chamfer of the pipes specified in the claims?

This issue is moot in view of the Second After Final Amendment filed contemporaneously with this Appeal Brief eliminating the objected to reference of a chamfered end of the pipe by cancelling claim 28 and amending claim 30 appropriately.

GROUPING OF CLAIMS

Issue No. 1: Addresses only claim 28.

Issue No. 2: Claims 12 - 14, 25 - 26, 28, and 30 rise and fall independently for reasons stated in greater detail below. Claims 27 and 29 rise and fall together.

Issue No. 3: Claims 12 - 14 and 25 - 30 rise and fall together.

ARGUMENT

Issue No. 1:

Claim 28 was rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. A Second Amendment after Final is submitted contemporaneously which cancels claim 28. Further, claim 30 has been amended to remove the term chamfered therefrom. Therefore, this issue is considered moot.

Issue No. 2:

Claims 12 - 14, and 25 - 30 were rejected under 35 U.S.C. §103(a) as being unpatentable over U. S. Patent No. 3,343,252 (Reesor) in view of U. S. Patent No. 3,937,641 (Kushner et al.) and 3M VMB™ Double Coated Acrylic Foam Tape and Adhesive Transfer Tapes Technical Data. The Examiner states that it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a double-sided tape applied only around the exterior surface of a pipe end, wherein the double-sided tape has a first and a second end and the second end forms an overlap of the first end so as to have a greater resistance to sheer force than the usual adhesive customarily used in joints that is applied in a liquid state as taught by Kushner et al.

Claim 12 requires a pair of thin wall metallic pipes each having an end portion and a pair of pipe ends positioned in parallel in an end-to-end relationship to each other. The Reesor reference does not show his pipe ends in an end to end relationship, because the Reesor reference places his pipe ends into a sleeve until the ends abut the annular groove of the sleeve so that the pipe ends in Reesor are spaced from each other by the groove distance in the sleeve. The Appellants of the present invention clearly define and show that the pipe ends refer to the extremities of the pipe as is commonly defined in Webster's dictionary. (See attached Appendix A). The Kushner et al. reference also does not show an end-to-end relationship of the pipes. In the Kushner et al. reference, one end of one pipe is within one end of another pipe. Claim 12 further requires that the double-sided adhesive tape is applied only around the exterior surfaces of the pair of the pipe ends. Specifically, claim 12 requires a pair of thin wall metallic pipes having....end portions, each end portion having a square cut.....end. Claim 12 requires that the double-sided adhesive tape is applied to the pipe ends and not merely to an end portion of the pipes as is disclosed in the Kushner et al. reference. The Reesor reference discloses the application of adhesive 31 to the internal peripheral surface 26 of the sleeve 23. The Reesor reference does not apply adhesive to the pipe ends. The Appellants clearly show that the double-sided adhesive tape is applied to the exterior portion of the pipe ends (the extremities of the pipe) and not to an end portion of the pipe that is spaced from the pipe end. In contrast, Kushner et al. teaches the application of a tape 28 applied to an end portion of a tube in a helical manner as shown in Figure 2 and stated in column 2, lines 49 - 53 of the Kushner et al. reference. The actual pipe end

in Kushner et al. is shown just below Reference No. 26. Kushner et al. does not show or disclose any adhesive tape around the exterior surface of the pipe end (below 26) according the definition of "end". Further, Kushner et al. does not show or disclose the adhesive tape only around exterior surfaces of the pair of pipe ends as required by claim 12. Kushner et al. shows a tape helically wound around an end portion of only one of the exterior surfaces of a pipe and not the exterior surfaces of a **pair** of pipe ends. In Kushner et al., the tube 12 is placed within the bore of tube 11. Therefore, the adhesive tape is on the inside surface of one of the tubes (i.e., tube 11) in the Kushner et al. reference. There is no suggestion to combine the adhesive tape used in telescopic pipes as disclosed in the Kushner et al. reference with the pipes and sleeve combination in the Reesor reference to provide the present invention. In addition, claim 12 requires that the adhesive foam tape has a first end and a second end, and the second end forms an overlap of the first end around the pair of pipe ends. By Webster's definition, "overlap" means to "be or extend over and cover part of" (see attached Appendix A). The Kushner et al. reference clearly does not show or disclose this feature. As seen in Figure 2 of the Kushner et al. reference, the first end (first extremity) of the adhesive tape is shown proximate to Reference Number 30. The second end (second extremity) of the tape is directly below the lower leader line from 32. As can be clearly seen, the second end of the tape in the Kushner et al. reference does not form an overlap of the first end of the tape to cover part of the first end. Further, the Kushner et al. reference does not disclose any overlap around the pair of pipe ends as required in claim 12. What the Examiner is purporting as an overlap region in Figure 2 is not what is required in claim 12. Claim 12 specifically

requires that the second end forms an overlap of the first end. There is no showing that there is an overlap of the first end in Kushner. Further, Kushner shows no overlap at all. In fact, the Kushner et al. reference teaches away from the present invention. In column 2, lines 54 - 58 of the Kushner et al. reference, it states that the tape is wound so that a space is maintained between the windings and that there is no overlapping of the tape and that the space between the windings has a particular function. Therefore, the Examiner's rejection of claim 12 is unsupported by the cited references, and reversal of the Examiner's rejection is requested.

With references to claim 13 which is dependent on claim 12, Reesor does not show or disclose a coupling that has a means for clamping the coupling. The Reesor reference only discloses a sleeve 23. Further, Reesor does not show or disclose that a means for clamping is positioned over the overlap of the double-sided adhesive closed-cell, acrylic foam tape at the pipe ends. The only clamping that occurs in Reesor is when the opposing end portions 27 and 28 of the coupling sleeve are radially inwardly shrunk by a draw sizing operation. Further, the radially inwardly shrinking of the coupling sleeve does not occur at the pipe ends as required in claims 12 and 13 but occur at end portions 27 and 28 of the sleeve 23 which is spaced from the two pipe ends as shown in Figure 6 at 32 and 33. The adhesive 31 is located between the radially inwardly shrinking portions at 27 and 28 and the ends of each pipe located at annular groove 24. Reesor states in col. 3, lines 25 - 29, that the compression on ends 27 and 28 of sleeve 23 allows the ends 29 and 30 of the tubes to move radially outwardly to avoid tension on the adhesive 31. Therefore, Reesor teaches away from claim 13 which requires clamping over the adhesive tape and pipe

ends. Therefore the Examiner's rejection of claim 13 is not supported by the cited references, and reversal of the Examiner's rejection is requested.

In addition to the above with respect to claim 14, the combination of Reesor and Kushner et al. does not anticipate, teach, or suggest the pair of pipe ends butted as close together as possible. Neither Reesor nor Kushner et al. teach or suggest butting the pipe ends together. In particular, the pipe ends in Reesor must be spaced from each other to accommodate the annular groove 24 in the sleeve 23. In Kushner et al., the one end of pipe 12 is placed inside of pipe 11. Therefore, the Examiner's rejection of claim 14 is not supported by the cited references, and reversal of the Examiner's rejection is requested.

With respect to claim 25, the combination of Reesor and Kushner et al. does not anticipate, teach, or suggest a pair of thin wall metallic pipes having smooth interior and exterior surfaces. The smooth interior surfaces is essential to the present invention to allow a plurality of trunklines to be pulled through the pipes easily without binding. The Reesor reference discloses pipes 21 and 22 having radially inwardly shrunk end portions at 27 and 28 and also a radial groove 24 formed by the sleeve which does not provide a smooth surface for pulling a plurality of trunklines therethrough. The Kushner et al. reference discloses that one pipe is positioned in another pipe which also does not provide a smooth surface for pulling a plurality of trunklines therethrough.

In addition to the above, with respect to claim 26, Kushner et al. does not show or disclose that the tape is precut and that the overlap is $3/16'' - 1/4''$ long and that the clamping means is positioned over the overlap. Kushner et al. does not

show or disclose any overlap. As discussed supra, the Kushner et al. reference teaches away from any overlap of the adhesive tape. Nor does Kushner et al. or Reesor show the clamping means positioned over the overlap. Therefore, the Examiner's rejection of claim 26 is not supported by the cited references, and reversal of the Examiner's rejection is requested.

With respect to claims 27 and 29, there is no teaching to combine the tape having the properties of the 3M VMB™ Double Coated Acrylic Foam Tape to either the Reesor or Kushner et al. references. The qualities attributed to the 3M tape is required to connect two ends of the pipes together for the application for an overhead pipe system for a fluid distribution system. Kushner is merely connecting the inside of one pipe to the outside of another pipe to provide a telescopic joint. Reversal of the Examiner's rejection of claims 27 and 29 is requested.

With respect to claim 28, claim 28 has been cancelled in the second Amendment After Final Rejection contemporaneously filed. Therefore, the rejection of claim 28 is moot.

In addition to the above, with respect to claim 30, Reesor does not show or disclose the ends of a pair of metallic pipes abutted in an end-to-end relationship. In contrast, Reesor teaches away from the pipe ends abutted in an end-to-end relationship because Reesor requires a sleeve having a center radial groove which forms a stop for each end of the pipe ends so that the pipes cannot abut each other. The combination of Reesor in view of Kushner et al. and the 3M VMB™ Double Coated Acrylic Foam Tape and Adhesive Transfer Tapes Technical Data taken singularly or in combination do not anticipate, teach or suggest a pair of

metallic pipes having smooth interior and exterior surfaces with pipe ends abutted to each other, and having double-sided adhesive closed-cell acrylic foam having specific properties applied only around the exterior surfaces of the abutted ends. Therefore, reversal of the Examiner's rejection of claim 30 is requested.

Issue No. 3:

A Second Amendment After Final is submitted contemporaneously which cancels claims 28 and corrects claim 30 to eliminate reference to a chamfered end of the pipe. Therefore, this issue is moot.

CONCLUSIONS

For the reasons stated above, it is respectfully submitted that Appellant's invention as set forth in claims 12 - 14, 25 - 27 and 29 - 30 are distinguished from the prior art. As such it is respectfully submitted that the Examiner's final rejection of claims 12 - 14, 25 - 27, and 29 - 30 is erroneously based and its reversal is respectfully requested.

No oral hearing is requested.

Appellant's attorney's check in the amount of \$165.00 is enclosed to cover the Appeal Brief filing fee.

If any charges or fees must be paid in connection with the following communication, they may be paid out of our Deposit Account No. 25-0115.

This Appeal Brief is being filed in triplicate including one original and two copies.

Respectfully submitted,

YOUNG & BASILE, P.C.

A handwritten signature in black ink, appearing to read "Darlene P. Condra".

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